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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,019	06/01/2005	James Mitchell Wells	GR61-036	8816

21567 7590 10/26/2006

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SPOKANE, WA 99201

EXAMINER

NGUYEN, KIET TUAN

ART UNIT PAPER NUMBER

2881

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/537,019

Applicant(s)

WELLS ET AL.

Examiner

Kiet T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-34 and 68-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-34 and 68-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/1/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Applicant's election without traverse of Group VI including claims 30-34 in the reply filed on 08/08/2006 is acknowledged.

Objected Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second set of electrode components having surfaces opposed each other as recited in claim 1; stainless steel mesh or mesh as recited in claim 33 or claim 69; and the second set of components as recited in claim 34 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Rejection Under 35 U.S.C. 112, First Paragraph

Claims 30-34 and 68-76 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification is completely silent for reciting the limitations "the second set of electrode components having surfaces opposed each other" as recited in claim 30; "the second set of components" as recited in claim 34; and "the second components" as recited in claim 70. Therefore, the examiner don't understand what is the structure of the ion trap? And how is the ion trap operated?

Additional explanations are needed if applicant insists on including these features in the claims 30, 34 and 70 without the insertion of new matter.

Clarification without the introduction of new matter is required.

Rejection Under 35 U.S.C. 102(b)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-32, 34, 68-69, 71-73 and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Bier et al. (5,420,425).

Claims 30-32, 34, 68-69, 71-73 and 76, as the best understood by the meaning of 112, 1st and the objection above, are rejected as:

Bier et al. (5,420,425) discloses, in figs. 1-9B, an ion trap mass spectrometer system. The system includes a cylindrical ion trap having a ring electrode 537 and two solid end cap electrodes 538 and 539 with apertures 506 and 509 (see figs. 5B and 5C) orthogonally related to the ring electrode 537, a ratio Zo/Ro of a first distance ($Zo = 1.000$ cm) to a second distance ($Ro = 1.020$ cm) being about 0.84 to about 1.2 (see col. 13, lines 49-52); a spacing distance which separates the ring electrode 537 and the end cap electrodes 538 and 539 and is related to the ratio (see figs. 5B and 5C); and a mass detector 326.

Claims 30-34, 68-74 and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramsey et al. (6,469,298).

Claims 30-34, 68-74 and 76, as the best understood by the meaning of 112, 1st and the objection above, are rejected as:

Ramsey et al. (6,469,298) discloses, in figs. 1-2, a mass spectrometer. The mass spectrometer includes a cylindrical ion trap 10 having a ring electrode 12, two insulating spacers 18 and 20, and two end cap electrodes 14 and 16 made of either stainless steel sheets or mesh with apertures (see fig. 1 and col. 2, lines 50-58) orthogonally related to the ring electrode 12, a ratio Zo/Ro of a first distance Zo to a second distance Ro being greater than 0.83 (see col. 3, lines 20-32); and a mass detector 34. The insulating

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spacers 18 and 20 have maximum factors and maximum values for making the ratio Z_o/R_o which is greater than 0.83, since the distance Z_o includes the thickness of the spacer 18 or 20.

Claim 75 would be allowable if rewritten to overcome the objection(s) and the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Reasons for indicating allowable subject matter

The prior art fails to disclose a mass separator having an electrode spacing distance being less than the product of a spacer maximum factor times a second distance as recited in claim 75.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Weiss et al. (6,133,568) discloses an ion trap mass spectrometer having a ratio Z_o/R_o ; and

2) Cooks et al. (6,762,406) discloses an ion trap array mass spectrometer having a ratio Z_o/R_o .

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet T. Nguyen whose telephone number is 571-272-2479. The examiner can normally be reached on Monday-Friday 8-6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KIET T. NGUYEN
PRIMARY EXAMINER